UNIVERSITY OF CRAIOVA
Faculty of Mathematics and Computer Science
Department of mathematics
Fundamental domain : Exact sciences
Domain: Mathematics
Master : Applied mathematics
Duration of studies : 2 years
Approved with academic year 2008-2009

The methodology of the scientific research
Syllabus

Course coordinator: Lect.dr. Matei Andaluzia
Code: MA115
Second Cycle: MASTER
First Year , Semester 1, Course 28 hours, Seminar 28 hours
No. of credits: 6
Domain: Mathematics
Type : compulsory
Category: complementary

Objectives : An introduction to scientific knowledge; the writing of the scientific papers; to valorize the research results .

Evaluation : Coloquium (C).

Contents:

A. Introduction
A.1 Principles of the scientific knowledge.
A.2 The origins of the scientific knowledge (the inductive method, the deductive method, the analogical method, the method of modeling, the hypothesis)

B. Examples of research problems
B.1 The history of the problem. The documentation using the mathematical databases.
B.2 The treatment of the problem.
B.3 Drafting a working plan of the paper. The writing of the paper. Norms of the writing.

C. To valorize the research results
C.1 Including in the paper the mathematics subject classification. The final draft; proofreading and correcting the text.
C.2 The publication of the paper. The presentation of the paper (the conference, the poster)
C.3 The research project. The research raport.

Bibliography

Mihaela St. Radulescu, Metodologia Cercetarii Stiintifice, Editura Didactica si Pedagogica, 2006.
Consiliul National al Cercetarii Stiintifice din Invatamantul superior, www.cncsis.ro
 Ethical guidelines of the American Mathematical Society, www.ams.org/secretary/ethics.html
 Mathematics Subject Classification www.ams.org/msc/
The Mathematical Association of America, www.maa.org
Albert Einstein, Cum vad eu lumea. Teoria relativitatii pe intelesul tuturor. (Principiile cercetarii)
Editia a II-a, Humanitas, Bucuresti, 2000.